combination of references could only be made in hindsight and is therefore improper. Additionally, the Applicants submit that the claimed invention is not obvious in light of the prior art.

A rejection for obviousness under 35 U.S.C. 103(a) requires motivation to combine references. In the MPEP (Section 2143.01) it states:

> The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggest the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990).

The Applicants submit that one would not be motivated to combine the Chang and Boston references as they are from non-analogous arts. In the MPEP (Section 2141.01(a) it states:

> In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d, 1443, 1445 (Fed. Cir. 1992) .

The Chang reference teaches a single, purification apparatus and method, preferably for a single type of fluid, which is theoretically already optimized, whereas Boston teaches a method for the optimization of a plant model. Integration of components is essential to the method of the invention. Although single components of the system can be optimized using the method of Boston, the optimization occurs in the context of the plant as a whole. There is no discussion of integration of the purification device of Chang into a larger apparatus or plant. Therefore, the Applicants submit that no motivation exists to combine the references.

The Applicants further submit that the combination of the Chang and Boston

references do not make the instant invention obvious. First, Chang teaches only one apparatus and method for fluid purification involving steps of heating a fluid, transporting the gas portion of the fluid, cooling the gas and separating the phases. Although it is acknowledged that other purification methods exist, no information is presented as to what such methods might be or what components or apparatus may be required for such methods. The equipment for fluid purification that may be optimized using the instant invention may include a variety of fluid purification methods that may or may not include the steps of the Chang patent. Second, Boston teaches an iterative process of optimization requiring entry of a full data set at the first step of the method. The method of Boston comprises providing a set of initial values for each unknown variable in the plant model to a data storage area, determination of a set of coefficients, simultaneous execution of a series of equations using the first set of coefficients to determine a second set of values for the plant model. The process is repeated using the second, and possibly subsequent, set of values. This is clearly distinct from claim 1 which claims "an interactive interface of an operating system comprising a series of sequential entries, response to each of which determines a next inquiry to be posed or a component to be specified." Boston states that his "invention has an advantage that includes having a single, unchanging set of equations that is applied to flash calculations." (col 3, lines 28-30) Therefore, although the iterative process of Boston could be understood to comprise a series of sequential entries, the entries are always subjected to the same equations or inquiry. This is clearly distinct from claim 1. Chang provides no teachings on methods to optimize selection of components or on components that may be available that are not useful in the specific invention of that patent.

The method of Boston need not be based on actual components. The initial

values for each unknown variable could be purely theoretical. Therefore, the resulting plant or apparatus could be impossible to construct. The method of the instant invention relies on a database of components that are commercially available. As each query determines the subsequent query or response, only entities that could be assembled will be selected by the components available. For example, if a high throughput fluid purification apparatus were specified for use in a plant to be designed using the Boston method, adsorbent beds larger than those commercially available could be specified by the method of Boston. Upon optimization of the plant, it would be learned that such equipment is not available. The process would need to be repeated from the beginning as the capacity of the fluid purification system would alter a number of components of the plant. The instant invention overcomes this limitation of the prior art. All components considered are commercially available.

The Applicants submit that in light of the forgoing arguments, claim 1, the only independent claim of the originally submitted claims is not obvious in light of the prior art. The instant invention claims a series of sequential inquiries wherein the response to each determines the next inquiry. Boston teaches a method in which the inquiries are iterative and identical at each step. The instant invention provides the user with a series of commercially available components to assemble a fluid purification apparatus. The invention of Boston provides a series of coefficients that may or may not correspond to commercially available components. Chang does not teach a method for selection or optimization of components. As claim 1 is clearly distinguished from the prior art, the remaining dependent claims, claims 2-27, are also distinguished and non-obvious in light of the prior art. Therefore the rejection of claims 1-27 in light of the prior art are traversed.

The new claim 28 includes providing an option to purchase the fluid purification

equipment identified in addition to all of the limitations in claim 1. This limitation is substantiated in the specification on page 4, lines 18-22 which states:

> Since the owner and provider of the method, database and software of the invention will normally also be a vendor of fluid purification equipment, the system operator will also usually be able to purchase the designated equipment from the vendor at the conclusion of the operator's use of the method of the invention.

Boston performs iterative calculations "until the change in the values of the coefficients in the local property model falls within a predetermined tolerance." (col 2, lines 6-8), not until components are specified. Therefore, the output of Boston is numbers, not components. Even if variables corresponding to real components were entered at the first step of Boston, the iterative calculation process would likely result in coefficients that did not correspond directly to commercially available products. Even the results of the Boston method did result in values that were readily commercially available, no method for determining price or availability of such products is taught by Boston or Chang. Therefore, the new claim 28 is clearly distinguished from the prior art.

FEES

The Applicants have enclosed a check in the amount of $9 for the addition of a claim in excess of 20. The Applicants believe that no additional fee is due. However, if an additional fee is due, the Commissioner is entitled to charge any fees to deposit account 02-4070 referencing case number 7184-PA10.

CONCLUSIONS

In view of the above amendments and remarks, it is respectfully submitted that the grounds of rejection have been traversed. The Examiner is therefore

respectfully requested to reconsider and withdraw his rejections and allow Claims 1-28; all claims in the case following amendment.

Should the Examiner believe that prosecution of this application might be expedited by further discussion of the issues, he is cordially invited to telephone the undersigned agent for Applicant, collect, at the telephone number listed below.

Respectfully submitted,

Dated: October 17, 2002

By: _____
Colleen J. McKiernan
Agent for Applicant
Registration No. 48,570

BROWN MARTIN HALLER & McCLAIN LLP
1660 Union Street
San Diego, California 92101-2926

Telephone: (619) 238-0999
Facsimile: (619) 238-0062

Docket No.: 7184-PA10

VERSION OF THE CLAIMS WITH AMENDMENTS SHOWN

28. (New) A method for identifying fluid purification equipment which is optimized for use in a particular fluid purification system, which comprises:

providing a relational database of specifications regarding a plurality of equipment components from which selection of individual components may be made;

providing access to said database through an interactive interface of an operating system comprising a series of sequential inquiries, response to each of which determines a next inquiry to be posed or a component to be specified, said inquiries eliciting defining information regarding said particular fluid purification system;

using said defining information to identify those of said components which, when assembled to form said fluid purification equipment in a manner specific to said particular fluid purification system, can be operated so as to optimize fluid purification in said particular fluid purification system; and

providing an option to purchase said fluid purification equipment.